EPS Change Workshop Comments

Included below are comments on the Issues for Discussion in the EPS Change Workshops as requested by letter from R. T. Williamson, dated 02-17-04.

1. A discussion of increasing EPS funding levels

For comments on increasing funding via surcharges, see the relevant item below. Those comments are also very much applicable to funding from any source other than surcharges.

The origin of funds is as important to meeting EPS goals as is their amount and efficient use. Emphasis must be placed on both consumer and non-consumer investment, leveraged by surcharges or other fees. These forms of investment can be way more significant than the surcharges that stimulate them. For example, SolarFarms was prepared to bring $25 million of long term investment from an out-of-state energy consortium for utility-scale projects in Arizona. Our Arizona utilities were unwilling to make long term commitments, and insisted on prices competitive with conventional production. This investment resource and SolarFarms' business interests went to India for similar projects.

Since Arizona utilities are responsible for spending the seed money, it is unlikely they will ever make the kinds of decisions needed to maximize outside investment, but they should be pressed to do so. A good way to do that is to insist that they provide evidence of competitive external quotes for all energy that they propose to build and own themselves. How else can the ACC gain confidence that the consumer fees are being spent most efficiently. And how else can the ACC expect to move their vision from "what is" to "what is possible". Eating the seed is a sure way to close down the farm.

2. Elimination of the EPS expiration date

The expiration date should be eliminated for numerous reasons, some of which follow:

- Arizona must send as clear a message as possible to all stakeholders that the EPS is not just a fad or long project, but a change in our priorities, thinking and future direction. Over time, the parameters of the EPS can be changed to more adequately address or integrate with changing circumstances, but its presence must never seem threatened.
- Power producers and their investors must always be encouraged and allowed to think long-term. This greatly impacts their ability to take risks and manage costs.
- Manufacturing and service businesses must know that ramping up in Arizona will not be a short-sighted losing strategy.
- Even if Arizona meets certain short-term EPS goals, like KWH/resident, percent of gross generation or $/KWH for certain technologies, it will still leave us far away from other longer and harder to reach goals; like being a net exporter of energy, of being independent of gas/oil costs and availability, of making energy a minor contributor to poor air quality, of eliminating energy as a major water consumer, etc.
- Today's challenges will be conquered, only to reveal tomorrow's challenges. For example, even if we maximize current renewable energy generation against peaking, stability and capacity factor limitations, we then must find ways to store, schedule and distribute those resources so that renewable energy can be utilized even further. These greater challenges lie beyond our current frontiers, but will all arrive in due time.
- If Arizona is to be a regional and national leader on this front, we must press others to make bold commitments by our leading example. So far we don't lead in much of anything, except maybe utility funded research.

3. Restoration of DSM funding

DSM funding ought not to be an mixed with EPS funding. DSM issues should not be mixed with EPS issues. Whatever DSM funding exists should never be used to achieve EPS goals

However, there is an important matter relating to the DSM/EPS relationship that should be reviewed and better defined. That important matter is the definition of which systems constitute DSM systems versus EPS systems. The need for and importance of this definition exists independently of whether there is a DSM program or standard or funding source. Consider the following clarifications.

- DSM System – A means by which the demand or consumption of a load, as measured at the utility meter, is reduced. It does not include any generating sources that qualify as EPS Systems.
- EPS System - This is mostly defined in the EPS with two possible exceptions:
  1. An EPS System must not also qualify as a DSM System, even if it impacts demand and/or consumption at the utility meter.
  2. When an EPS System operates in concert with a DSM System, they must have a clear boundary for energy measurement of the EPS System contribution and for costing the EPS System installation.

4. Allocation of funding among various technologies

Our goal for the EPS in Arizona *should* be to generate as much renewable energy as we can, limited only by what we can afford and what can be reliably mixed into the gross production.

The regulation of bias among the renewable technologies is the single greatest flaw in the Arizona EPS. As much as SolarFarms might approve of prejudice toward solar technology and despite the fact we believe it is the one long-term renewable solution with the most benefits, we cannot support the regulation of bias toward this or any other technology. Regulated bias of technology is averse to several things cited here:

- Resource Diversity – It minimizes the mix of resources developed, and thus constrains the generation characteristics of the resources which are developed.
- Competition – Competition is good for innovation, cost reduction, speed of implementation, business growth and consumer confidence. Only under the pressure of intense competition among diverse resources will this occur.
- Use of Least Cost Resources – The familiar and natural free market pressure of using the least cost resources is ignored. In Arizona, we ought to exploit all renewable resources, regardless of their secondary and external benefits, and based solely on their competitive costs.
- Maximizing Return on Surcharge Dollars – If lower cost resources are bypassed in favor of higher cost resources, the EPS surcharge dollars will not go as far. This is not good stewardship of consumer trust and financing.
- Rapid Achievement of EPS Goals – If Arizona implements renewable energy resources in their natural order on the cost pyramid, the greatest amount of good will be achieved in the least amount of time.
- Simplicity of the EPS – Regulating technology bias requires more complexity in the EPS. At least 30% of the five page standard could be eliminated if the ratios, schedules and stipulations of technology contributions were eliminated.
- Accuracy of EPS Reporting – Reporting KWH and credits would be more accurate and more complete. The totals would come close to representing the entire renewable energy resources developed in Arizona, a more meaningful and comparative number than the myopic view of certain EPS=qualified resources.
- Fairness to Business – Those participating in the development of resources would know they are being treated fairly, where everyone's success hinges on the same market forces.
- Simplicity of Renewable Energy Credits – The current system has invoked a two-tier credit system and a three-tier pricing system. There are solar KWH and credits, other renewable KWH and credits and non-renewable KWH. Eliminating bias would reduce this to a single credit system for renewable energy and two-tier pricing for renewable and non-renewable energy.

If, as commonly stated and believed, solar energy is Arizona's most abundant resource with the greatest external benefits, then it can still be exploited without regulating a technology bias. If the gross production quotas for renewable energy are ramped high enough, it will become necessary to develop solar energy in order to meet the gross quota, but it should not happen until all the lower cost alternatives have been fully exploited. The quota will still provide a forcing function for how much solar is developed. Since solar energy is high on the cost pyramid, it will ensure a diverse mix of resources are developed before extensive solar energy investments are made..

5. Whether or not Arizona can and should increase its commitment to renewable energy by increasing the surcharge and the portfolio percentage

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Surcharge Increases

Arizona should NOT increase the surcharge until we find that we are obtaining the maximum amount of renewable energy of all kinds possible at the lowest cost. This requires two main emphases:

- The elimination of technology bias to permit minimizing KWH costs. Currently the technology is biased toward solar electric resources, which are at the top of the cost pyramid. This is discussed in detail under the Allocation of Funding item above.
- The monitoring and maximizing of investment from non-surcharge sources. Presently this is neither monitored or maximized, and surcharge investment is not evaluated based on its effectiveness to leverage non-surcharge investment.
- The elimination of profit on KWH credit sales to achieve quotas and ratios. One never sells something for what it costs. Every time a KWH credit sale occurs, the surcharge dollar is diluted, because more dollars were spent to obtain the credit than it cost to generate the credit. Unless credits are generated by outside investor resources, no utility should profit from credits. There is probably no good way to assure this happens unless credits are eliminated. However, if technology bias is eliminated, credit sales would not be significant except for those who chose not develop renewable resources.

It should have been conspicuously obvious that the CEWG Report excluded evaluation of almost everything except solar electric programs and projects. Even the solar electric evaluation excluded some normal costs of development and production, and there were certainly no competitive costs from independent power producers represented in the mix. This is an example of where and how significant cost reduction can be achieved.

Quota Percentage Increases

Arizona should INCREASE quota percentages beyond those required in the current EPS until the goal stated above is met. Utilities will correctly say that they cannot meet the current quotas with the current technology bias. However, they could meet the quotas, and much more besides, without the technology bias.

Some utilities have not invested in any renewable energy with their surcharge dollars. They must be required to comply with the EPS. Some have spent their dollars but have fallen way short of meeting quotas, but have not pursued the lowest cost alternatives for producing even their solar electric production. They must be urged to find ways to meet the production quotas even if the technology criteria cannot be preserved. The ACC must see production as more important than ratios.

Some utilities are legitimately investing in manufacturing technology in lieu of producing energy. This is not at all helpful to meeting our goal or improving our environment, and has mostly not resulted in generating renewable energy in Arizona. Producing quotas should be emphasized and non-production credits should be minimized.

6. Review of the requirements for the phase-in of renewable technologies found in A.A.C. R14-2-1618 B.3

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The requirements in B.3 are part of the technology bias discussed above, and should be eliminated. They neither contribute to Arizona's achievement of the goal above, nor do they meet consumer priorities; and, they distract us from accomplishing significant oil/gas/coal independence and environmental cleanliness. Let the utilities do in the renewable energy sector what they have always done well in the conventional energy sector, pursue the least cost approach for generation.

Raise the total generation quotas as needed and when appropriate, until the EPS goal above is met.

7. Consideration of inclusion of new and emerging technologies as part of the review of the appropriate resource mix

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There are no good reasons to exclude any truly renewable energy technology. Exclusion defeats our main goal of maximum independence from non-renewable resources. The definition of qualified resources should not be technology specific, but rather dependent on the natural renewal of the resource.

There was specific discussion about certain nuclear energy technologies. Nuclear energy of all types known today is not renewable.

There was specific discussion about fuel cell technologies. If a fuel cell consumes a fuel that is renewable, then it should be considered a renewable resource.

There should be discussion about including hydro, geothermal, and all other legitimate renewable resources that can be sourced from within Arizona.

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